

1. In a storage area network (SAN) comprising one or more digital data processors in communication with one or more storage devices, wherein at least a selected one of the digital data processors operates under an operating system having

a class driver for claiming a storage devices for access by the operating system and any applications programs executing therein by invoking the port driver to which such device is coupled,

a filter in communication with the port driver and the class driver, the filter intervening to block claiming of one or more selected storage devices by the class driver.

195

3. In the SAN of claim 1, wherein the operating system is a Windows 2000™, and the filter blocks claiming of a selected storage device by any of (i) intercepting a request from the class driver to the port driver for purposes of claiming that storage device, (ii) returning a failure code in response to such request.
4. In the SAN of claim 1, the further improvement comprising an element in communication with the filter and transmitting thereto identifiers of one or more storage devices for which claiming is to be any of blocked and not blocked.
5. In the SAN of claim 4, the further improvement wherein the element comprises a further digital data processor that is coupled for communication with the selected digital data processor.
6. In the SAN of claim 4, the further improvement wherein
- the element transmits to the filter identifiers of one or more storage devices for which claiming is not to be blocked,
- the filter intervening to block claiming of fiber channel storage devices other than those identified for which claiming is not to be blocked.
7. In the SAN of claim 4, the further improvement wherein the class driver creates a disk object upon successfully claiming a storage device, the further improvement comprising an agent that blocks access by the operating system or an application executing thereon to a selected

4.03304 " 9322650

storage device for which such a disk object has already been created by invalidating the disk object for that device and that, optionally, unblocks access to that storage device by re-validating that disk object.

8. In the SAN of claim 7, the further improvement wherein the agent comprises software executing on the digital data processor.

9. In the SAN of claim 4, wherein the

port driver identifies the one or more storage devices coupled to the adapter,

the class driver invokes the port driver during initialization of the operating system for purposes of claiming the one or more storage devices identified by the port driver as being coupled to the selected digital data processor,

the further improvement wherein

the filter responds to identification of a storage device for which claiming is not to be blocked -- for which storage device claiming had previously been blocked -- by invoking the port driver for purposes of claiming the one or more storage devices identified by the port driver as being coupled to the selected digital data processor.

10. In a storage area network (SAN) comprising one or more digital data processors in communication with one or more storage devices, wherein at least a selected one of the digital data processors operates under a Windows(TM) operating system having

a port driver defining a software interface between a class driver and an adapter to which one or more of the storage devices are coupled,

a class driver for claiming a storage devices for access by the operating system and any applications programs executing therein by invoking the port driver to which such device is coupled,

the improvement comprising:

a manager digital data processor that is coupled to the selected digital data processor and that assigns one or more selected storage devices thereto,

the manager digital data processor communicating identifiers of the selected storage devices to a filter operating in conjunction with the selected digital data processor,

the filter in communication with the port driver and the class driver, the filter intervening to block claiming of storage devices other than those identified by the manager digital data processor,

09972386 100604

the filter blocking such claiming by returning a failure code to the class driver in response to its invocation of the port driver for purposes of claiming a storage device.

11. In the SAN of claim 10, the further improvement wherein the selected digital data processor is coupled to the one or more storage devices by a first network.

12. In the SAN of claim 11, wherein the manager digital data processor is coupled to the selected digital data processors by a second network.

13. In the SAN of claim 12, wherein the first network comprises fiber channel and the second network is an IP network.

14. In the SAN of claim 11, the further improvement comprising a graphical user interface coupled to the manager digital data processor that facilitates operator identification of one or more storage devices to be assigned to the selected digital data processor.

15. In a storage area network (SAN) comprising one or more digital data processors in communication with one or more storage devices, wherein at least a selected one of the digital data processors operates under a Windows(TM) 2000 operating system having

a port driver defining a software interface between a class driver and an adapter to which one or more of the storage devices are coupled,

09972386 100504
T05007 9822660

a class driver for claiming a storage devices for access by the operating system and any applications programs executing therein by invoking the port driver to which such device is coupled,

the improvement comprising:

a manager digital data processor that is coupled to the selected digital data processor and that assigns one or more selected storage devices thereto,

the manager digital data processor communicating identifiers of the selected storage devices to a filter operating in conjunction with the selected digital data processor,

the filter in communication with the port driver and the class driver, the filter intervening to block claiming of storage devices other than those identified by the manager digital data processor,

the filter blocking such claiming by intercepting a request from the class driver to the port driver for purposes of claiming a storage device

16. In the SAN of claim 15, the further improvement wherein the selected digital data processor is coupled to the one or more storage devices by a first network.

105007 9902660

17. In the SAN of claim 16, wherein the manager digital data processor is coupled to the selected digital data processors by a second network.

18. In the SAN of claim 17, wherein the first network comprises fiber channel and the second network is an IP network.

19. In the SAN of claim 16, the further improvement comprising a graphical user interface coupled to the manager digital data processor that facilitates operator identification of one or more storage devices to be assigned to the selected digital data processor.

20. In a storage area network (SAN) comprising one or more digital data processors in communication with one or more storage devices, wherein at least a selected one of the digital data processors operates under a Windows 2000™ operating system having

a port driver defining a software interface between a class driver and an adapter to which one or more of the storage devices are coupled,

a class driver for claiming a storage devices for access by the operating system and any applications programs executing therein by invoking the port driver to which such device is coupled,

a plug-n-play manager that invokes the port driver to populate a data structure with data pertaining to one or more storage devices that are coupled the adapter,

the improvement comprising:

a filter in communication with the port driver, the filter block access to selected ones of the storage devices by removing from the data structure at least selected data pertaining those storage devices.

21. In the SAN of claim 20, the further improvement wherein the filter responds to identification of a storage device for which claiming is not to be blocked -- for which storage device claiming had previously been blocked -- by invoking the port driver to populate a data structure with data pertaining to one or more storage devices that are coupled the adapter.

105007 9822660